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**Alaska SAR Facility
RADARSAT Geophysical Processor System**

**Product Specification
Version 1.31**

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	New section included: 1.2 File Name Convention		
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	Changes included: Converting all fractional areas from real*4 to integer*2 Converting freezing-degree-day ranges from real*4 to complex*8 Deleted entries for first-year ice fractional areas Converted all locations to kilometers Changed definitions of number of age and thickness categories Added a ridge flag Converted the 50km grid map locations from real*8 to real*4		
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	Changed Eulerian Ice Motion Product: Increased image product identifier lengths Changed image corner values from lat/lon to x/y double precision Added npix/nrec for image B Defined algo_type as character*8		
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	Changed 50km Gridded Products: Added cell size Made product start and end times consistent Removed entries for corners of grid cells Added ridge thickness fractional areas to 50km Ice Thickness Product		
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	Updated product sizes		

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1.0 Introduction

This document specifies the content and format of the products generated by the Radarsat Geophysical Processor System.

1.1 Notes on the Data

- All fractional areas referred to in the product descriptions are normalized to the initial area of that cell, so that fractional area values may be greater than one in some cases.
- For space considerations, all fractional areas are given as 2-byte integers that must be multiplied by 0.001 to retrieve the proper value.
- Cell areas, and other areas calculated from the cell area, may be negative in certain situations.
- Data are defined as one of the following types:
 - Cnn* : character string of byte length *nn*
 - I2* : 2-byte integer
 - I4* : 4-byte integer
 - R4* : 4-byte floating point
 - R8* : 8-byte floating point
 - CX8* : 8-byte complex number

1.2 Product File naming Convention

File Name: PnpppSYDDDDddd.TF

where

Pn: Platform and number ("R1", "E1", "E2")
ppp: Product ID (1-999)
S: Data stream ID (a-z, A-Z)
YY: Start year of the product
DDD: Start julian day of the product
ddd: Duration (in days) that the product spans
T: Product type, according to the code described on the following table
F: File type ("P" for product, "M" for metadata)

1.3 Summary (Frequency and Size)

The following table summarizes the production frequency and size of each of the products. The asterisked entries have variable length sizes and are explained in the following notes. These records contain histograms where the number of entries are related to the cumulative number of observations of a particular quantity. Therefore, as a season progresses, the sizes of the products increase. The noted size estimates assume the existence of 100,000 cells in the full histograms and 4000 cells in the 50km products. The yearly size estimates assume nine months of observation, since these are winter products only. It is also assumed that there will optimally be 8 observations per 24-day cycle.

Product Type	Code	Frequency	Size (MB)	Size(GB/yr)
Lagrangian Ice Motion	A	1/wk	11	0.4
Ice Age Histogram	B	1/wk	* (note 1)	4.1
Interpolated Ice Age Histogram (3-day)	C	1/wk	* (note 2)	4.9
Area/Open Water Fraction	D	1/wk	14.4	0.6
Ice Thickness Histogram	E	1/wk	* (note 3)	1.7
Backscatter Histogram	F	1/wk	20	0.8
Ice Age Histogram (50km grid)	G	1/wk	* (note 4)	0.02
Ice Thickness Histogram (50km grid)	H	1/wk	* (note 5)	0.02
Backscatter Histogram (50km grid)	I	1/wk	0.4	0.02
Area/Open Water Fraction (50km grid)	J	1/wk	0.4	0.02
Eulerian Ice Motion (50km grid)	K	1/wk	0.2	0.01
Eulerian Ice Motion	L	variable	0.2	1.04
Melt Onset/Freeze Up	M	2/yr	9	0.02
Wind/Temp/Pressure Fields (50km grid)	N	1/day	0.2	0.07
Ice Deformation	O	1/wk	18.0	0.7
			Total	14.7/yr

(note 1): 15MB + 4MB times the number of temporal observations.

(note 2): 15MB + 3MB times the number of temporal observations.

(note 3): 17.6MB + 2MB times the number of temporal observations.

(note 4): 0.2MB + 0.01MB times the number of temporal observations.

(note 5): 0.2MB + 0.02MB times the number of temporal observations.

2.0 Lagrangian Ice Motion Product

Description

This product contains the trajectories of all grid points within an initial datatake over a time interval between time T_{start} up through time $T_{\text{start}}+n\Delta T$. The last observations are added at $T_{\text{start}}+n\Delta T=T_{\text{end}}$. For example, the starting time, T_{start} , could be at fall freeze-up or at the spring-summer transition. Here, $1/\Delta T$ is the frequency of product generation and n is an integer greater or equal to 1. T_{end} is typically at the end of a season of ice tracking.

Frequency/Size Estimate

The production frequency is once per week. Each product file grows as more observations are added each week. Assuming that an average datatake contains 10,000 grid points, the initial product file is approximately 1.1 MB and increases by 1.1MB per week.

2.1 Lagrangian Ice Motion Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_IMAGES Number of images used in the creation of this product	I2	N/A	1	N/A	N/A	N/A
N_TRAJECTORIES Number of trajectories	I4	N/A	1	N/A	N/A	N/A
PROD_TYPE Product type	C8	N/A	N/A	N/A	N/A	"winter" "summer"
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
SEASON_START_YEAR Season start year	I2	N/A	1995	N/A	N/A	N/A
SEASON_START_TIME Season start time	R8	day	1.00	367.00	N/A	N/A
SEASON_END_YEAR Season end year	I2	N/A	1995	N/A	N/A	N/A
SEASON_END_TIME Season end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datatake	R4	Deg	-90.0	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datatake	R4	Deg	-90.0	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datatake	R4	Deg	-90.0	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A

2.2 Lagrangian Ice Motion Product: Image Description Data

The image description data contain one record per image used in the construction of the Lagrangian ice motion. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
IMAGE_ID ASF image identifier	C16	N/A	N/A	N/A	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
IMAGE_YEAR Image center year	I2	N/A	1995	N/A	N/A	N/A
IMAGE_TIME Image center time	R8	day	1.00	367.00	N/A	N/A
MAP_X Image center x	R8	km	N/A	N/A	N/A	N/A
MAP_Y Image center y	R8	km	N/A	N/A	N/A	N/A

2.3 Lagrangian Ice Motion Product: Gridpoint/Trajectory Description Data

The gridpoint description data contain one record for each gridpoint and its trajectory. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
GPID Grid point identifier	I4	N/A	0	N/A	N/A	N/A
BIRTH_YEAR Birth year of grid point	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of grid point	R8	day	1.00	367.00	N/A	N/A
DEATH_YEAR Death year of grid point	I2	N/A	1995	N/A	N/A	N/A
DEATH_TIME Death year of grid point	R8	day	1.00	367.00	N/A	N/A
N_OBS Number of observations in trajectory	I4	N/A	1	N/A	N/A	N/A
OBS_YEAR_1 Year of first observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_1 Time of first observation	R8	day	1.00	367.00	N/A	N/A
X_MAP_1 X map location of first observation	R8	km	N/A	N/A	N/A	N/A
Y_MAP_1 Y map location of first observation	R8	km	N/A	N/A	N/A	N/A
Q_FLAG_1 Quality Flag of first observation	I2	N/A	N/A	N/A	N/A	N/A
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OBS_YEAR_N Year of (N_OBS) observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_N Time of (N_OBS) observation	R8	day	1.00	367.00	N/A	N/A
X_MAP_N X map location of (N_OBS) observation	R8	km	N/A	N/A	N/A	N/A
Y_MAP_N Y map location of (N_OBS) observation	R8	km	N/A	N/A	N/A	N/A
Q_FLAG_N Quality Flag of (N_OBS) observation	I2	N/A	N/A	N/A	N/A	N/A

3.0 Ice Age Histogram Product

Description

This product contains the ice age histograms of all the grid cells covering the Arctic Ocean at time T_s .

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains the ice age histograms and ridging events of the approximately 500,000 grid cells covering the Arctic Ocean. This record is of dynamical size, depending on the number of ice age ranges and ridging events that are sampled.

3.1 Ice Age Histogram Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
SEASON_START_YEAR Season start year	I2	N/A	1995	N/A	N/A	N/A
SEASON_START_TIME Season start time	R8	day	1.00	367.00	N/A	N/A
SEASON_END_YEAR Season end year	I2	N/A	1995	N/A	N/A	N/A
SEASON_END_TIME Season end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A

3.2 Ice Age Histogram Product: MY-Keep Record

The my-keep record contains the number of smallest MY ice fraction values to keep in each cell record.

Name/Description	Type	Units	Min	Max	Miss	Values
N_MYKEEP The number of smallest MY ice fraction values to keep for each cell	I2	N/A	N/A	N/A	N/A	N/A

3.3 Ice Age Histogram Product: Histogram Data

The histogram data contain one record per cell observed. The data pertain to the last observation of the cell up to the time of the product. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID Cell identifier	I4	N/A	0	N/A	N/A	N/A
OBS_YEAR Year of observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME Time of observation	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
X_MAP Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
C_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
FDD Accumulated freezing degree days since cell creation	R4	deg C day	0	N/A	N/A	N/A
I_AREA Initial cell area	R4	sq km	0	N/A	N/A	N/A
C_AREA Current cell area	R4	sq km	0	N/A	N/A	N/A
N_AGE Number of age categories up to and including the oldest observation	I2	N/A	N/A	N/A	N/A	N/A
AR_1 1st age range (youngest ice)	CX8	days	N/A	N/A	N/A	N/A
FAR_1 Fractional area in 1st age range	I2	N/A	0	N/A	N/A	N/A
FDD_1 Accumulated freezing degree days of 1st age range	CX8	deg C day	0	N/A	N/A	N/A
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AR_N (N_AGE) age range	CX8	days	N/A	N/A	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
FAR_N Fractional area in (N_AGE) age range	I2	N/A	0	N/A	N/A	N/A
FDD_N Accumulated freezing degree days of (N_AGE) age range	CX8	deg C day	0	N/A	N/A	N/A
FAR_FYR Fractional area in ridged-FY category	I2	N/A	0	N/A	N/A	N/A
FAR_MY Fractional area in radiometric MY category	I2	N/A	0	N/A	N/A	N/A
FAR_MY1 First element of the N_MYKEEP smallest myfrac values	I2	N/A	0	N/A	N/A	N/A
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FAR_MYN Last element of the N_MYKEEP smallest myfrac values	I2	N/A	0	N/A	N/A	N/A
N_RIDGE Number of ridging event records	I2	N/A	0	N/A	N/A	N/A
RIDGE_AR_1 Age range of ridging event 1	CX8	days	0	N/A	N/A	N/A
RIDGE_FAR_1 Fractional area of ridging event 1	I2	N/A	0	N/A	N/A	N/A
RIDGE_FDD_1 Accumulated freezing degree days of ridging event 1	CX8	deg C day	0	N/A	N/A	N/A
RIDGE_FLAG_1 0 = old ridge, 1 = new ridge	I2	N/A	0	1	N/A	N/A
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RIDGE_AR_N Age range of ridging event N_RIDGE	CX8	days	0	N/A	N/A	N/A
RIDGE_FAR_N Fractional area fo ridging event N_RIDGE	I2	N/A	0	N/A	N/A	N/A
RIDGE_FDD_N Accumulated freezing degree days of ridging event N_RIDGE	CX8	deg C day	0	N/A	N/A	N/A
RIDGE_FLAG_N 0 = old ridge, 1 = new ridge	I2	N/A	0	1	N/A	N/A

4.0 Interpolated Ice Age Histogram Product (3-day age categories)

Description

This product contains the ice age histograms of all the grid cells within an initial datatake at time T_S . Each ice age histogram has uniformly-sampled (integral multiples of 3 days) age categories which are constructed from interpolation of the non-uniformly spaced Lagrangian cell areas into 3-day cell area.

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains the ice age histograms of the grid cells within this product. This record is of dynamical size, depending on the number of interpolated ice age ranges that are sampled.

4.1 Interpolated Ice Age Histogram Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	1	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
SEASON_START_YEAR Season start year	I2	N/A	1995	N/A	N/A	N/A
SEASON_START_TIME Season start time	R8	day	1.00	367.00	N/A	N/A
SEASON_END_YEAR Season end year	I2	N/A	1995	N/A	N/A	N/A
SEASON_END_TIME Season end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A

4.2 Interpolated Ice Age Histogram Product: Age Range and MY-Keep Record

The age range and my-keep record contains the age interval of each category in the age histogram and the number of smallest interpolated multiyear ice fraction values to keep in each cell record.

Name/Description	Type	Units	Min	Max	Miss	Values
AGE_STEP The interval of each age category	R4	days	0	N/A	N/A	N/A
N_MYKEEP The number of smallest interpolated MY ice fraction values to keep for each cell	I2	N/A	N/A	N/A	N/A	N/A

4.3 Interpolated Ice Age Histogram Product: Histogram Data

The histogram data contain multiple records. Each record contains the ice age histogram for each cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID Cell identifier	I4	N/A	0	N/A	N/A	N/A
OBS_YEAR Year of observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME Time of observation	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
X_MAP Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
C_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
FDD Accumulated freezing degree days since cell creation	R4	deg C day	0	N/A	N/A	N/A
I_AREA Initial cell area	R4	sq km	0	N/A	N/A	N/A
C_AREA Current cell area	R4	sq km	0	N/A	N/A	N/A
N_AGE Number of age categories up to and including the oldest observation	I2	N/A	N/A	N/A	N/A	N/A
FAR_1 Fractional area in 1st age range	I2	N/A	0	N/A	N/A	N/A
FDD_1 Accumulated freezing degree days of 1st age range	CX8	deg C day	0	N/A	N/A	N/A
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Name/Description	Type	Units	Min	Max	Miss	Values
FAR_N Fractional area in (N_AGE) age range	I2	N/A	0	N/A	N/A	N/A
FDD_N Accumulated freezing degree days of (N_AGE) age range	CX8	deg C day	0	N/A	N/A	N/A
FAR_FYR Fractional area in ridged-FY category	I2	N/A	0	N/A	N/A	N/A
FAR_MY Fractional area in MY category	I2	N/A	0	N/A	N/A	N/A
FAR_MY1 First element of the N_MYKEEP smallest interpolated myfrac values	I2	N/A	0	N/A	N/A	N/A
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FAR_MYN Last element of the N_MYKEEP smallest interpolated myfrac values	I2	N/A	0	N/A	N/A	N/A

5.0 Area/Open Water Fraction Product

Description

This product contains the area and estimated open water fraction of all the grid cells within an initial dataake at time T_s . This product is produced only during the summer.

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains information of the area and open water fraction of the grid cells within this product, the size of each product being approximately 15MB.

5.1 Area/Open Water Fraction Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
SEASON_START_YEAR Season start year	I2	N/A	1995	N/A	N/A	N/A
SEASON_START_TIME Season start time	R8	day	1.00	367.00	N/A	N/A
SEASON_END_YEAR Season end year	I2	N/A	1995	N/A	N/A	N/A
SEASON_END_TIME Season end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datake	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datake	R4	Deg	-180.00	180.00	N/A	N/A

5.2 Area/Open Water Fraction Product: Area/Open Water Fraction Data

The area/open water fraction data contain multiple records. Each record contains the area/open water fraction estimates for a cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID Cell identifier	I4	N/A	0	N/A	N/A	N/A
OBS_YEAR Year of observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME Time of observation	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
X_MAP Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
CELL_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
MDD Cumulative melting degree days	R4	deg C day	0	N/A	N/A	N/A
I_AREA Initial cell area	R4	sq km	0	N/A	N/A	N/A
C_AREA Current cell area	R4	sq km	0	N/A	N/A	N/A
OW_FRAC Open water fraction	I2	N/A	0	N/A	N/A	N/A

6.0 Ice Thickness Histogram Product

Description

This product contains the ice thickness histograms of all the grid cells within an initial data take at time T_s .

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains the ice thickness histograms and the recent ridging events of the grid cells within this product. This record is of dynamical size, depending on the number of thickness ranges that are sampled.

6.1 Ice thickness Histogram Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
SEASON_START_YEAR Season start year	I2	N/A	1995	N/A	N/A	N/A
SEASON_START_TIME Season start time	R8	day	1.00	367.00	N/A	N/A
SEASON_END_YEAR Season end year	I2	N/A	1995	N/A	N/A	N/A
SEASON_END_TIME Season end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial data take	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial data take	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial data take	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial data take	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial data take	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial data take	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial data take	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial data take	R4	Deg	-180.00	180.00	N/A	N/A

6.2 Ice Thickness Histogram Product: Interpolated Thickness Range Record

The interpolated thickness range record describes the thickness interval of each thickness category.

Name/Description	Type	Units	Min	Max	Miss	Values
THICK_STEP The interval of each thickness category	R4	cm	0	N/A	N/A	N/A

6.3 Ice Thickness Histogram Product: Histogram Data

The histogram data contain multiple records. Each record contains the ice thickness histogram for a grid cell and its ridging events. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID Cell identifier	I4	N/A	0	N/A	N/A	N/A
OBS_YEAR Year of observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME Time of observation	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
X_MAP Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
C_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
FDD Accumulated freezing degree days	R4	deg C day	0	N/A	N/A	N/A
I_AREA Initial cell area	R4	sq km	0	N/A	N/A	N/A
C_AREA Current cell area	R4	sq km	0	N/A	N/A	N/A
N_THICK Number of thickness categories up to and including the thickest observation	I2	N/A	N/A	N/A	N/A	N/A
FAR_1 Fractional area in 1st thickness range	I2	N/A	0	N/A	N/A	N/A
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FAR_N Fractional area in the (N_THICK) thickness range	I2	N/A	0	N/A	N/A	N/A
FAR_FYR Fractional area in ridged-FY category	I2	N/A	0	N/A	N/A	N/A
FAR_MY Fractional area in MY category	I2	N/A	0	N/A	N/A	N/A
N_RIDGE Number of ridging event records	I2	N/A	0	N/A	N/A	N/A
RIDGE_TR_1 Thickness range of ridging event 1	CX8	cm	0	N/A	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
RIDGE_FAR_1 Fractional area ridged in ridging event 1	I2	N/A	0	N/A	N/A	N/A
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RIDGE_TR_N Thickness range of ridging event N_RIDGE	CX8	cm	0	N/A	N/A	N/A
RIDGE_FAR_N Fractional area ridged in ridging event N_RIDGE	I2	N/A	0	N/A	N/A	N/A

7.0 Backscatter Histogram Product

Description

This product contains the backscatter histograms of all the grid cells within an initial data take at time T_S .

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains the backscatter histograms of the grid cells within this product. The size of a product file is approximately 31MB.

7.1 Backscatter Histogram Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
SEASON_START_YEAR Season start year	I2	N/A	1995	N/A	N/A	N/A
SEASON_START_TIME Season start time	R8	day	1.00	367.00	N/A	N/A
SEASON_END_YEAR Season end year	I2	N/A	1995	N/A	N/A	N/A
SEASON_END_TIME Season end time	R8	day	1.00	367.00	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial data take	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial data take	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial data take	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial data take	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial data take	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial data take	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial data take	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial data take	R4	Deg	-180.00	180.00	N/A	N/A

7.2 Backscatter Histogram Product: Backscatter Range Record

The backscatter range record describes the backscatter range for each category in the backscatter histogram.

Name/Description	Type	Units	Min	Max	Miss	Values
BSR_1 1st backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_2 2nd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_3 3rd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_4 4th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_5 5th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_6 6th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_7 7th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_8 8th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_9 9th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_10 10th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_11 11th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_12 12th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_13 13th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_14 14th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_15 15th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_16 16th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_17 17th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_18 18th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_19 19th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_20 20th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_21 21st backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_22 22nd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_23 23rd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_24 24th backscatter range	CX8	dB	N/A	N/A	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
BSR_25 25th backscatter range	CX8	dB	N/A	N/A	N/A	N/A

7.3 Backscatter Histogram Product: Backscatter Histogram Data

The histogram data contain multiple records. Each record contains the backscatter histogram for a grid cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	MISS	Values
CELL_ID Cell identifier	I4	N/A	0	N/A	N/A	N/A
OBS_YEAR Year of observation	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME Time of observation	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
X_MAP Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A
CELL_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
I_AREA Initial cell area	R4	sq km	0	N/A	N/A	N/A
C_AREA Current cell area	R4	sq km	0	N/A	N/A	N/A
MYFRAC Multiyear ice fraction	I2	N/A	0	N/A	N/A	N/A
OWFRAC Open water fraction	I2	N/A	0	N/A	N/A	N/A
FBSR_1 Fractional area in 1st backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_2 Fractional area in 2nd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_3 Fractional area in 3rd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_4 Fractional area in 4th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_5 Fractional area in 5th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_6 Fractional area in 6th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_7 Fractional area in 7th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_8 Fractional area in 8th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_9 Fractional area in 9th backscatter range	I2	N/A	0.0	1000	N/A	N/A

Name/Description	Type	Units	Min	Max	MISS	Values
FBSR_10 Fractional area in 10th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_11 Fractional area in 11th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_12 Fractional area in 12th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_13 Fractional area in 13th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_14 Fractional area in 14th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_15 Fractional area in 15th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_16 Fractional area in 16th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_17 Fractional area in 17th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_18 Fractional area in 18th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_19 Fractional area in 19th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_20 Fractional area in 20th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_21 Fractional area in 21st backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_22 Fractional area in 22nd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_23 Fractional area in 23rd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_24 Fractional area in 24th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_25 Fractional area in 25th backscatter range	I2	N/A	0.0	1000	N/A	N/A
INC_ANG Incidence angle	R4	deg	0.0	90.0	N/A	N/A

8.0 Gridded Ice Age Histogram Product - (50km grid)

Description

This product contains the ice age histograms of 50km x 50km Earth-fixed grid cells covering the Arctic Ocean at time T_S .

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains the ice age histograms of the approximately 4000 50km x 50km grid cells covering the Arctic Ocean. This record is of dynamical size, depending on the number of interpolated ice age ranges that are sampled.

8.1 Gridded Ice Age Histogram Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CELL_SIZE Size of cells in the product	R4	km	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A

8.2 Gridded Ice Age Histogram Product: Interpolated Age Range Record

The interpolated age range record contains the age interval of each category in the age histogram.

Name/Description	Type	Units	Min	Max	Miss	Values
AGE_STEP The interval of each age category	R4	days	0	N/A	N/A	N/A

8.3 Gridded Ice Age Histogram Product: Histogram Data

The histogram data contain multiple records. Each record contains the ice age histogram for a grid cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
N_OBS Number of observations in grid cell	I2	N/A	1	N/A	N/A	N/A
OBS_YEAR_0 Earliest year of observation in grid cell	I2	N/A	1995	N/A	N/A	N/A
OBS_YEAR_1 Latest year of observation in grid cell	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_0 Earliest time of observation in grid cell	R8	day	1.00	367.00	N/A	N/A
OBS_TIME_1 Latest time of observation in grid cell	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR_0 Earliest birth year in grid cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_YEAR_1 Latest birth year in grid cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME_0 Earliest birth time in grid cell	R8	day	1.00	367.00	N/A	N/A
BIRTH_TIME_1 Latest birth time in grid cell	R8	day	1.00	367.00	N/A	N/A
X_MAP_CENTER Map location of cell center - x	R4	km	N/A	N/A	N/A	N/A
Y_MAP_CENTER Map location of cell center - y	R4	km	N/A	N/A	N/A	N/A
C_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
I_AREA Sum of initial cell areas in grid cell	R4	sq km	0	N/A	N/A	N/A
C_AREA Sum of current cell areas in grid cell	R4	sq km	0	N/A	N/A	N/A
N_AGE Number of age categories up to and including the oldest observation	I2	N/A	N/A	N/A	N/A	N/A
FAR_1 Fractional area in 1st age range	I2	N/A	0	N/A	N/A	N/A
· · ·	· · ·	· · ·	· · ·	· · ·	· · ·	· · ·
FAR_N Fractional area in (N_AGE) age range	I2	N/A	0	N/A	N/A	N/A
FAR_FYR Fractional area in ridged-FY category	I2	N/A	0	N/A	N/A	N/A
FAR_MY Fractional area in radiometric MY category	I2	N/A	0	N/A	N/A	N/A

9.0 Gridded Ice Thickness Histogram Product (50km grid)

Description

This product contains the ice thickness histograms of 50km x 50km Earth-fixed grid cells covering the Arctic Ocean at time T_S .

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains the ice thickness histograms and ridging events of the approximately 4000 50km x 50km grid cells covering the Arctic Ocean. This record is of dynamical size, depending on the number of thickness ranges that are sampled.

9.1 Gridded Ice Thickness Histogram Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CELL_SIZE Size of cells in the product	R4	km	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A

9.2 Gridded Ice Thickness Histogram Product: Interpolated Thickness Range Record

The interpolated thickness range record describes the thickness interval of each thickness category.

Name/Description	Type	Units	Min	Max	Miss	Values
THICK_STEP The interval of each ice thickness category	R4	cm	0	N/A	N/A	N/A
THICK_R_STEP The interval of each ridge thickness category	R4	cm	0	N/A	N/A	N/A

9.3 Gridded Ice Thickness Histogram Product: Histogram Data

The histogram data contain multiple records. Each record contains the ice thickness histogram for a grid cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
N_OBS Number of observations in grid cell	I2	N/A	1	N/A	N/A	N/A
OBS_YEAR_0 Earliest year of observation in grid cell	I2	N/A	1995	N/A	N/A	N/A
OBS_YEAR_1 Latest year of observation in grid cell	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_0 Earliest time of observation in grid cell	R8	day	1.00	367.00	N/A	N/A
OBS_TIME_1 Latest time of observation in grid cell	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR_0 Earliest birth year in grid cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_YEAR_1 Latest birth year in grid cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME_0 Earliest birth time in grid cell	R8	day	1.00	367.00	N/A	N/A
BIRTH_TIME_1 Latest birth time in grid cell	R8	day	1.00	367.00	N/A	N/A
X_MAP_CENTER Map location of cell center - x	R4	km	N/A	N/A	N/A	N/A
Y_MAP_CENTER Map location of cell center - y	R4	km	N/A	N/A	N/A	N/A
C_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
I_AREA Sum of initial cell areas in grid cell	R4	sq km	0	N/A	N/A	N/A
C_AREA Sum of current cell areas in grid cell	R4	sq km	0	N/A	N/A	N/A
N_THICK Number of ice thickness categories up to and including the thickest observation	I2	N/A	N/A	N/A	N/A	N/A
FAR_1 Fractional area in 1st ice thickness range	I2	N/A	0	N/A	N/A	N/A
.
.
.
FAR_N Fractional area in the (N_THICK) ice thickness range	I2	N/A	0	N/A	N/A	N/A
FAR_FYR Fractional area in ridged-FY category	I2	N/A	0	N/A	N/A	N/A
FAR_MY Fractional area in radiometric MY category	I2	N/A	0	N/A	N/A	N/A
N_RTHICK Number of ridge thickness categories up to and including the thickest observation	I2	N/A	N/A	N/A	N/A	N/A
FAR_R_1 Fractional area in 1st ridge thickness range	I2	N/A	0	N/A	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
.
.
.
FAR_R_N Fractional area in the (N_THICK) ridge thickness range	I2	N/A	0	N/A	N/A	N/A

10.0 Gridded Backscatter Histogram Product (50km grid)

Description

This product contains the ice age histograms of 50km x 50km Earth-fixed grid cells covering the Arctic Ocean at time T_S .

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains the backscatter histograms of the approximately 4000 50km x 50km grid cells covering the Arctic Ocean. Each product file is approximately 0.2MB in size.

10.1 Gridded Backscatter Histogram Product : Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CELL_SIZE Size of cells in the product	R4	km	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A

10.2 Gridded Backscatter Histogram Product : Backscatter Range Record

The backscatter range record describes the backscatter range for each category in the backscatter histogram

Name/Description	Type	Units	Min	Max	Miss	Values
BSR_1 1st backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_2 2nd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_3 3rd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_4 4th backscatter range	CX8	dB	N/A	N/A	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
BSR_5 5th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_6 6th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_7 7th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_8 8th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_9 9th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_10 10th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_11 11th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_12 12th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_13 13th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_14 14th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_15 15th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_16 16th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_17 17th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_18 18th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_19 19th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_20 20th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_21 21st backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_22 22nd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_23 23rd backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_24 24th backscatter range	CX8	dB	N/A	N/A	N/A	N/A
BSR_25 25th backscatter range	CX8	dB	N/A	N/A	N/A	N/A

10.3 Gridded Backscatter Histogram Product : Backscatter Histogram Data

The histogram data contain multiple records. Each record contains the backscatter histogram for a grid

cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
N_OBS Number of observations in grid cell	I2	N/A	1	N/A	N/A	N/A
OBS_YEAR_0 Earliest year of observation in grid cell	I2	N/A	1995	N/A	N/A	N/A
OBS_YEAR_1 Latest year of observation in grid cell	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_0 Earliest time of observation in grid cell	R8	day	1.00	367.00	N/A	N/A
OBS_TIME_1 Latest time of observation in grid cell	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR_0 Earliest birth year in grid cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_YEAR_1 Latest birth year in grid cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME_0 Earliest birth time in grid cell	R8	day	1.00	367.00	N/A	N/A
BIRTH_TIME_1 Latest birth time in grid cell	R8	day	1.00	367.00	N/A	N/A
X_MAP_CENTER Map location of cell center - x	R4	km	N/A	N/A	N/A	N/A
Y_MAP_CENTER Map location of cell center - y	R4	km	N/A	N/A	N/A	N/A
CELL_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
I_AREA Sum of initial cell areas in grid cell	R4	sq km	0	N/A	N/A	N/A
C_AREA Sum of current cell areas in grid cell	R4	sq km	0	N/A	N/A	N/A
FBSR_1 Fractional area in 1st backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_2 Fractional area in 2nd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_3 Fractional area in 3rd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_4 Fractional area in 4th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_5 Fractional area in 5th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_6 Fractional area in 6th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_7 Fractional area in 7th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_8 Fractional area in 8th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_9 Fractional area in 9th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_10 Fractional area in 10th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_11 Fractional area in 11th backscatter range	I2	N/A	0.0	1000	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
FBSR_12 Fractional area in 12th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_13 Fractional area in 13th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_14 Fractional area in 14th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_15 Fractional area in 15th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_16 Fractional area in 16th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_17 Fractional area in 17th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_18 Fractional area in 18th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_19 Fractional area in 19th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_20 Fractional area in 20th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_21 Fractional area in 21st backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_22 Fractional area in 22nd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_23 Fractional area in 23rd backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_24 Fractional area in 24th backscatter range	I2	N/A	0.0	1000	N/A	N/A
FBSR_25 Fractional area in 25th backscatter range	I2	N/A	0.0	1000	N/A	N/A

11.0 Gridded Area/Open Water Fraction Product (50km grid)

Description

This product contains the area and estimated open water fraction of all the grid cells covering the Arctic Ocean at time T_S .

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains area/open water fraction data for the 4000 50km x 50km grid cells covering the Arctic Ocean. Each product file is approximately 0.5MB in size.

11.1 Gridded Area/Open Water Fraction Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CELL_SIZE Size of cells in the product	R4	km	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
PROD_START_YEAR Product start year	I2	N/A	1995	N/A	N/A	N/A
PROD_START_TIME Product start time	R8	day	1.00	367.00	N/A	N/A
PROD_END_YEAR Product end year	I2	N/A	1995	N/A	N/A	N/A
PROD_END_TIME Product end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A

11.2 Gridded Area/Open Water Fraction Product: Open Water Fraction Data

The area/open water fraction data contain multiple records. Each record contains the area/open water fraction estimates for a cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
N_OBS Number of observations in grid cell	I2	N/A	1	N/A	N/A	N/A
OBS_YEAR_0 Earliest year of observation in grid cell	I2	N/A	1995	N/A	N/A	N/A
OBS_YEAR_1 Latest year of observation in grid cell	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_0 Earliest time of observation in grid cell	R8	day	1.00	367.00	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
OBS_TIME_1 Latest time of observation in grid cell	R8	day	1.00	367.00	N/A	N/A
BIRTH_YEAR_0 Earliest birth year in grid cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_YEAR_1 Latest birth year in grid cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME_0 Earliest birth time in grid cell	R8	day	1.00	367.00	N/A	N/A
BIRTH_TIME_1 Latest birth time in grid cell	R8	day	1.00	367.00	N/A	N/A
X_MAP_CENTER Map location of cell center - x	R4	km	N/A	N/A	N/A	N/A
Y_MAP_CENTER Map location of cell center - y	R4	km	N/A	N/A	N/A	N/A
CELL_TEMP Temperature at cell center	R4	deg C	-100.0	100.0	N/A	N/A
I_AREA Initial cell area	R4	sq km	0	N/A	N/A	N/A
C_AREA Current cell area	R4	sq km	0	N/A	N/A	N/A
OW_FRAC Open water fraction	I2	N/A	0	N/A	N/A	N/A

12.0 Gridded Eulerian Ice Motion Product (Interpolated to 50km grid)

Description

This product contains the interpolated ice motion on a 50km grid covering the Arctic Ocean at time T_S .

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains the weekly ice motion at the 4000 grid points covering the Arctic Ocean. The product file is approximately 0.2MB in size

12.1 Gridded Eulerian Ice Motion Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_GRID Number of grid points in the product	I2	N/A	1	N/A	N/A	N/A
GRID_SP Grid spacing	R4	km	0.0	1000.0	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
OBS_YEAR Observation year	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME Observation time	R8	day	1.00	367.00	N/A	N/A
DELTA_TIME Delta time between observations	R8	day	0.00	366.000	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A

12.2 Gridded Eulerian Ice Motion Product: Ice Motion Data

The ice motion data contain multiple records. Each record contains interpolated ice motion at each grid point. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
GRID_X Grid point location - x	R8	km	N/A	N/A	N/A	N/A
GRID_Y Grid point location - y	R8	km	N/A	N/A	N/A	N/A
DISP_X Displacement in x	R8	km	N/A	N/A	N/A	N/A
DISP_Y Displacement in y	R8	km	N/A	N/A	N/A	N/A

13.0 Eulerian Ice Motion Product

Description

This product contains the ice motion on a 5km grid computed from a pair of images.

Frequency/Size Estimate

This product is requested by the user. Each product file is approximately 0.02MB and 0.5MB in size for ERS-1 and RADARSAT, respectively.

13.1 Eulerian Ice Motion Product: Metadata Record

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
APID Image A Product identifier	C20	N/A	N/A	N/A	N/A	N/A
BPID Image B Product identifier	C20	N/A	N/A	N/A	N/A	N/A
ACENTYEAR Scene center year of Image A	I2	N/A	1995	N/A	N/A	N/A
ACENTTIME Scene center time of Image A	R8	day	1.00	367.00	N/A	N/A
BCENTYEAR Scene center year of Image B	I2	N/A	1995	N/A	N/A	N/A
BCENTTIME Scene center time of Image B	R8	day	1.00	367.00	N/A	N/A
A_TL_X Upper left x, Image A	R8	km	N/A	N/A	N/A	N/A
A_TL_Y Upper left y, Image A	R8	km	N/A	N/A	N/A	N/A
A_TR_X Upper right x, Image A	R8	km	N/A	N/A	N/A	N/A
A_TR_Y Upper right y, Image A	R8	km	N/A	N/A	N/A	N/A
A_BR_X Lower right x, Image A	R8	km	N/A	N/A	N/A	N/A
A_BR_Y Lower right y, Image A	R8	km	N/A	N/A	N/A	N/A
A_BL_X Lower left x, Image A	R8	km	N/A	N/A	N/A	N/A
A_BL_Y Lower left y, Image A	R8	km	N/A	N/A	N/A	N/A
B_TL_X Upper left x, Image B	R8	km	N/A	N/A	N/A	N/A
B_TL_Y Upper left y, Image B	R8	km	N/A	N/A	N/A	N/A
B_TR_X Upper right x, Image B	R8	km	N/A	N/A	N/A	N/A
B_TR_Y Upper right y, Image B	R8	km	N/A	N/A	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
B_BR_X Lower right x, Image B	R8	km	N/A	N/A	N/A	N/A
B_BR_Y Lower right y, Image B	R8	km	N/A	N/A	N/A	N/A
B_BL_X Lower left x, Image B	R8	km	N/A	N/A	N/A	N/A
B_BL_Y Lower left y, Image B	R8	km	N/A	N/A	N/A	N/A
PIXEL_SP Pixel spacing	R4	m	0.0	100.0	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
GRID_W_OBS Grid elements with observations	I4	N/A	N/A	N/A	N/A	N/A
NPIX_A Number of pixels across image A	I4	N/A	N/A	N/A	N/A	N/A
NREC_A Number of records down image A	I4	N/A	N/A	N/A	N/A	N/A
NPIX_B Number of pixels across image B	I4	N/A	N/A	N/A	N/A	N/A
NREC_B Number of records down image B	I4	N/A	N/A	N/A	N/A	N/A
AVG_DISP_X Average displacement in x	R4	km	N/A	N/A	N/A	N/A
AVG_DISP_Y Average displacement in y	R4	km	N/A	N/A	N/A	N/A
D_TIME Time separation between images	R8	day	0.00	366.000	N/A	N/A
GRIDSPACE Grid element spacing	R4	km	N/A	N/A	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
ALGO_TYPE Algorithm type	C8	N/A	N/A	N/A	N/A	N/A

13.2 Eulerian Ice Motion: Ice motion Vector data

Name/Description	Type	Units	Min	Max	Miss	Values
A_GRID_X Grid point location - x, Image A	R8	km	N/A	N/A	N/A	N/A
A_GRID_Y Grid point location - y, Image A	R8	km	N/A	N/A	N/A	N/A
B_GRID_X Grid point location - x, Image B	R8	km	N/A	N/A	N/A	N/A
B_GRID_Y Grid point location - y, Image B	R8	km	N/A	N/A	N/A	N/A
DISP_X Displacement in x	R4	km	N/A	N/A	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
DISP_Y Displacement in y	R4	km	N/A	N/A	N/A	N/A
ROT_ANGLE Rotation angle	R4	N/A	-180.0	180.0	N/A	N/A
Q_FLAG Quality Flag	BYTE	N/A	1	6	N/A	N/A

14.0 Melt Onset/Freeze Up Product

Description

This product contains the melt onset or freeze up dates of all the grid cells covering the Arctic Ocean.

Frequency/Size Estimate

The product generation frequency is twice per ice season, one during the spring-summer transition and the other during the summer-fall transition. Each product file is approximately 20MB in size.

14.1 Melt Onset/Freeze Up Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	1	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
SEASON_START_YEAR Season start year	I2	N/A	1995	N/A	N/A	N/A
SEASON_START_TIME Season start time	R8	day	1.00	367.00	N/A	N/A
SEASON_END_YEAR Season end year	I2	N/A	1995	N/A	N/A	N/A
SEASON_END_TIME Season end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A

14.2 Melt Onset/Freeze Up Product: Transition Data

The transition dates data contain multiple records. Each record contains the date of seasonal transition for a cell. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID cell identifier	I4	N/A	0	N/A	N/A	N/A
TRANSITION_YEAR Year of observation	I2	N/A	1995	N/A	N/A	N/A
TRANSITION_TIME Time of observation	R8	day	1.00	367.00	N/A	N/A
X_MAP Map location of cell center - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of cell center - y	R8	km	N/A	N/A	N/A	N/A

15.0 Gridded Wind/Temperature/Pressure Fields (50km grid)

Description

This product contains the wind, temperature and pressure at all the grid points (50km grid spacing) covering the Arctic Ocean at time T_S .

Frequency/Size Estimate

The product generation frequency is once per day. Each product file contains wind, temperature and pressure fields over the Arctic Ocean. Each product file is approximately 0.2MB in size.

15.1 Gridded Wind/Temperature/Pressure Fields: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_GRID Number of grid pts	I4	N/A	1	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
MET_YEAR Year of the analysis	I2	N/A	1995	N/A	N/A	N/A
MET_TIME Time of the analysis	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A

15.2 Gridded Wind/Temperature/Pressure Fields: Data

The meteorological data contain multiple records. Each record contains wind vector, pressure and temperature at each grid point. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
X_MAP Map location of grid point - x	R8	km	N/A	N/A	N/A	N/A
Y_MAP Map location of grid point - y	R8	km	N/A	N/A	N/A	N/A
X_WIND x component of wind velocity	R4	m/s	N/A	N/A	N/A	N/A
Y_WIND y component of wind velocity	R4	m/s	N/A	N/A	N/A	N/A
PRESSURE Pressure	R4	mb	N/A	N/A	N/A	N/A
TEMP Temperature	R4	deg C	N/A	N/A	N/A	N/A

16.0 Ice Deformation Product

Description

This product contains the area changes and ice motion spatial derivatives of all the grid cells within an initial datatake between the times T_{s-7} and T_s .

Frequency/Size Estimate

The product generation frequency is once per week. Each product file contains information of the area changes and ice motion spatial derivatives of the grid cells within the product. Since the product contains all observations in the product time period, the size of each product will vary and will contain approximately 11MB per observation of all 100,000 cells.

16.1 Ice Deformation Product: Metadata Record Contents

Name/Description	Type	Units	Min	Max	Miss	Values
PID RGPS Product identifier	C24	N/A	N/A	N/A	N/A	N/A
PROD_DESCRIPTION Description of this product	C40	N/A	N/A	N/A	N/A	N/A
N_CELLS Number of cells in the product	I4	N/A	N/A	N/A	N/A	N/A
CREATE_YEAR Product creation year	I2	N/A	1995	N/A	N/A	N/A
CREATE_TIME Product creation time	R8	day	1.00	367.00	N/A	N/A
SEASON_START_YEAR Season start year	I2	N/A	1995	N/A	N/A	N/A
SEASON_START_TIME Season start time	R8	day	1.00	367.00	N/A	N/A
SEASON_END_YEAR Season end year	I2	N/A	1995	N/A	N/A	N/A
SEASON_END_TIME Season end time	R8	day	1.00	367.00	N/A	N/A
SW_VERSION Software version used to create this product	C12	N/A	N/A	N/A	N/A	N/A
N_W_LAT North West Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
N_W_LONG North West Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
N_E_LAT North East Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
N_E_LONG North East Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
S_W_LAT South West Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
S_W_LONG South West Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A
S_E_LAT South East Latitude of initial datatake	R4	Deg	-90.00	90.00	N/A	N/A
S_E_LONG South East Longitude of initial datatake	R4	Deg	-180.00	180.00	N/A	N/A

16.2 Ice Deformation Product: Area Change and Ice Motion Derivatives Data

The area change and ice motion spatial derivatives data contain multiple records. Each cell contains multiple observations of area change and ice motion spatial derivatives. The records are in row order. Each record has the following format.

Name/Description	Type	Units	Min	Max	Miss	Values
CELL_ID Cell identifier	I4	N/A	0	N/A	N/A	N/A
BIRTH_YEAR Birth Year of cell	I2	N/A	1995	N/A	N/A	N/A
BIRTH_TIME Birth time of cell	R8	day	1.00	367.00	N/A	N/A
N_OBS Number of observations of cell	I2	N/A	1	N/A	N/A	N/A
OBS_YEAR_1 Year of observation 1	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_1 Time of observation 1	R8	day	1.00	367.00	N/A	N/A
X_MAP_1 X map location of observation 1	R8	km	N/A	N/A	N/A	N/A
Y_MAP_1 Y map location of observation 1	R8	km	N/A	N/A	N/A	N/A
X_DISP_1 X displacement of between current observation and previous observation	R8	km	N/A	N/A	N/A	N/A
Y_DISP_1 Y displacement between current observation and previous observation	R8	km	N/A	N/A	N/A	N/A
C_AREA_1 Cell area of observation 1	R4	sq km	N/A	N/A	N/A	N/A
D_AREA_1 Cell area difference between current observation and previous observation	R4	sq km	N/A	N/A	N/A	N/A
DTP_1 Time difference between current observation and previous observation	R4	day	N/A	N/A	N/A	N/A
DUDX_1 du/dx ice motion partial of observation 1	R4	N/A	N/A	N/A	N/A	N/A
DUDY_1 du/dy ice motion partial of observation 1	R4	N/A	N/A	N/A	N/A	N/A
DVDX_1 dv/dx ice motion partial of first observation	R4	N/A	N/A	N/A	N/A	N/A
DVDY_1 dv/dy ice motion partial of observation 1	R4	N/A	N/A	N/A	N/A	N/A
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OBS_YEAR_N Year observation of (N_OBS)	I2	N/A	1995	N/A	N/A	N/A
OBS_TIME_N Time observation of (N_OBS)	R8	day	1.00	367.00	N/A	N/A

Name/Description	Type	Units	Min	Max	Miss	Values
X_MAP_N X map location of observation (N_OBS)	R8	km	N/A	N/A	N/A	N/A
Y_MAP_N Y map location of observation (N_OBS)	R8	km	N/A	N/A	N/A	N/A
X_DISP_N X displacement between (N_OBS) observation and previous observation	R8	km	N/A	N/A	N/A	N/A
Y_DISP_N Y displacement between (N_OBS) observation and previous observation	R8	km	N/A	N/A	N/A	N/A
C_AREA_N Cell area of (N_OBS) observation	R4	sq km	N/A	N/A	N/A	N/A
D_AREA_N Cell area difference between (N_OBS) observation and previous observation	R4	sq km	N/A	N/A	N/A	N/A
DTP_N Time difference between (N_OBS) observation and previous observation	R4	day	N/A	N/A	N/A	N/A
DUDX_N du/dx ice motion partial of (N_OBS) observation	R4	N/A	N/A	N/A	N/A	N/A
DUDY_N du/dy ice motion partial of (N_OBS) observation	R4	N/A	N/A	N/A	N/A	N/A
DVDX_N dv/dx ice motion partial of (N_OBS) observation	R4	N/A	N/A	N/A	N/A	N/A
DVDY_N dv/dy ice motion partial of (N_OBS) observation	R4	N/A	N/A	N/A	N/A	N/A